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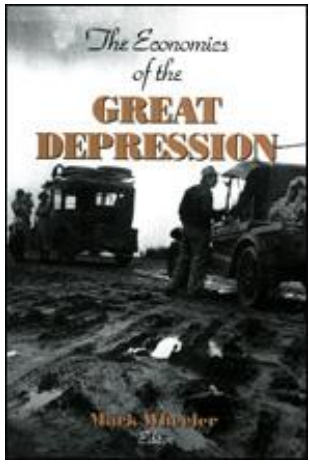
The Great Depression as a Historical Problem



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3 The Great Depression as a Historical Problem

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It is now over a half-century since the Great Depression of the 1930s, the most severe and protracted economic crisis in American history. To this day, there exists no general agreement about its causes, although there tends to be a consensus about its consequences. Those who at the time argued that the Depression was symptomatic of a profound weakness in the mechanisms of capitalism were only briefly heard. After World War II, their views appeared hysterical and exaggerated, as the industrialized nations (the United States most prominent among them) sustained dramatic rates of growth and as the economics profession became increasingly preoccupied with the development of Keynesian theory and the management of the mixed economy. As a consequence, the economic slump of the inter-war period came to be viewed as a policy problem rather than as an outgrowth of fundamental tendencies in capitalist development. Within that new context, a debate persisted for a few years, but it too eventually subsided. The presumption was that the Great Depression could never be repeated owing to the increasing sophistication of economic analysis and policy formulation. Indeed, the belief became commonplace that the business cycle was "tamed" and "obsolete."

The erratic performance of the American economy since the early 1970s has made this notion itself seemingly obsolete. Serious questions have been raised concerning the political obstacles to the effective management of cyclical instability and, as well, our skill in diagnosing and correcting economic maladies. Indeed, entirely new varieties of economic thinking have emerged, which have argued that the government cannot alter levels of real output (let alone rates of increase in output) except under exceptional circumstances that involve the execution of consistently inaccurate (or irrational) forecasts by eco-

nomic agents and/or the implementation of fiscal and monetary policies without the anticipation of the private sector. The confidence of the Keynesian Revolution has been shaken. A new "classicism" has come to prominence in economic thought.

In this climate of economic opinion, it is important to note that the optimism of the post-World War II era regarding the mixed economy and the new economics of Keynesianism had emerged at a time of dramatic reconstruction in the world economy and concomitant prosperity in the American. Such hope had been absent in the decade of the Great Depression; even during the war years there had been great apprehension that a return to depression would come close on the heels of victory. But the high growth rates of the 1950s and 1960s obscured the pre-war debates and dissolved for the moment any fears of a return to hard times.

Yet the concerns and misgivings of the depression and war years, far from being resolved, simply faded from view. While it has by now long been fashionable to claim that "Keynes is dead," and that altogether novel approaches to economic policy formulation must be developed, it has nevertheless been deemed passé to engage with the ideas and theses of an older generation of economists who struggled to understand strange and devastating events at a time when orthodox theories and remedies no longer sufficed. Indeed, the vast majority of contemporary economists have grown decidedly hostile to arguments concerning the Great Depression that have not focused on the short run or on policy failure. In this respect they have avoided the structural, institutional, and long-run perspectives—more characteristic of their forebears—that sought to situate the great economic crisis of the interwar years within a historical framework that spanned several decades or more. By so doing, they have lost an appreciation not simply of some possible causes of the Great Depression itself, but also of the subsequent development and performance of the American economy since mid-century. It is for this reason that I seek, through a reassessment of particular aspects of these older analytical approaches, to persuade you of the usefulness and insight afforded by an understanding of "The Great Depression as a Historical Problem."

The older literature concerning the Great Depression in the United States may be broadly classified into three categories. The first argued that the severity and length of the downturn was the direct result of the

collapse of financial markets that began in 1929. The main emphasis of such work concerned the causes of the 1929 crash and those factors that amplified its impact. The second concluded that the economic calamity of the 1930s was the direct result of poorly formulated and politically distorted actions undertaken by the government. The third category took a broader perspective and attempted to analyze the Depression in a long-run context. It suggested that whatever the origins of the slump, the reasons for its unparalleled length and severity predated and transcended the events of the last quarter of 1929. To this third category of analysis I shall devote most of my attention—but first I would like to survey the general arguments characteristic of those economists who focused on short-run dynamics and policy failure.

All short-run analyses of the Great Depression shared a common attribute. They focused on the immediate causes and impacts of the stock market collapse in 1929, and they asserted that the precipitous devaluation of wealth and the disruption of the banking system occasioned by it explained the intensity of the crisis. The "business confidence" thesis was perhaps the best example of this school of thought. It held that regardless of the mechanisms that caused the collapse, the dramatic slide of the stock market created intensely pessimistic expectations in the business community. The shock to confidence was so severe and unexpected that a dramatic panic took hold, stifling investment and thereby a full recovery.[1]

A more comprehensive formulation of the short-run argument directly confronted the question of why financial markets collapsed. Looking to the political and institutional distortions created by the Treaty of Versailles, some writers (such as Irving Fisher, Lionel Robbins, and Jacob Viner) argued that the Depression was the inevitable consequence of the chaotic and unstable credit structure of the 1920s. World finances, of course, were significantly destabilized by the provisions of the Versailles Treaty itself. The principal irritant consisted of a dangerous circle of obligations and risks in which (as epitomized by the Dawes Plan of 1924) the United States lent funds to Great Britain, France, and Germany, while German reparations were needed to allow the Allies to liquidate their American debts. By 1928, American banks were already quite wary of the situation. Yet their predictable and understandable response, cutting back on loans to European governments, merely made the situation worse. Moreover, the demise of the

gold standard in international trade, and the demands by France and the United States that Germany make her reparations payments in gold rather than in the export of goods and services, created a net gold flow into the United States that led to a veritable explosion of credit. Extremely unstable credit arrangements thereby emerged in the 1920s, especially in mortgage markets. Given the relatively unregulated environment at the time, many banks were committed to questionable loan contracts. Once the crash came, the collapse of the banking system was quick to follow. Thus, excessive credit and speculation coupled with a weak banking network caused the Great Depression.[2]

Another version of the short-run argument concerned the immediate effects of the crash on consumer wealth and spending. The severity of the downturn, it was argued, resulted in a drastic devaluation of consumer wealth and incomes. The large stress placed on the capital markets and the lack of consumer confidence in banks ensured that effective demand could not be bolstered by increased credit. The large decreases in purchasing power, which emerged directly from the crash, left the economy saddled with excess capacity and inadequate demand.[3]

None of these short-run arguments were completely convincing or satisfying. Inasmuch as the business confidence thesis was subjective, it was virtually impossible to evaluate in the light of historical evidence. This weakness was perhaps best exemplified by the claim of Gustav Cassel who, in focusing on psychological factors in the slump, argued that "American puritanism stands out as perhaps the most important [example] . . . the stock exchange speculation of 1928–29 was regarded as particularly sinful behavior which had to get its punishment." There was also the major theoretical objection to notions like these that they mistook effect for cause, given that the objective circumstances of the 1930s may have generated the subjective responses of pessimism and panic. Such theories could not, therefore, occupy a central place in explanations of the Depression.[4]

The excessive credit and speculation argument was frequently rejected on the grounds that it abstracted too boldly from real rather than monetary events in the inter-war economy. Indeed, business cycle indicators turned down before the stock market crashed; indices of industrial production started to fall by the summer of 1929, and a softness in construction activity was apparent in 1928. Such critics as John

Kenneth Galbraith held that "cause and effect run from the economy to the stock market, never the reverse. Had the economy been fundamentally sound in 1929 the effect of the great stock market crash might have been small . . . the shock to confidence and the loss of spending by those who were caught in the market might soon have worn off."[5]

As for the wealth and spending hypothesis, the evidence did not provide a compelling proof. The dramatic decline in consumption expenditures after 1929 may have been due to the wealth effects of the stock market debacle; it may have arisen once expectations had been dampened by the events after 1929; or it may have been an outgrowth of a declining trend in construction activity and in farm incomes during the 1920s. But even recent econometric investigations have been incapable of unambiguously explaining a large portion of the decline in spending. We can speak of an autonomous drop, but we cannot say for sure why it happened.[6]

Another approach to understanding the Depression evaluated the extent to which the slump was the result of systematic policy errors. Inadequate theory and misleading information, as well as political pressures, it was argued, distorted the policymaking process. Such investigators as Melvin Brockie, Kenneth Roose, and Sumner Slichter maintained that from 1932 onwards the American economy showed a great potential for recovery, only to be set back profoundly by the 1936 recession. They found that monetary conditions were not a factor insofar as the data showed low short-term interest rates, a strong bond market, and a high incidence of excess reserves. It was the impact of the New Deal, they asserted, which was responsible for negating whatever monetary stimulus did exist because of the tendency of the Industrial Codes to raise labor costs and material input prices. The rhetoric and ideology of the Roosevelt administration may have also played a role by jeopardizing the confidence of the business community.[7] Not surprisingly, several investigators (as well as journalists and pundits) labeled the downturn of 1936–37 the "Roosevelt Recession."

The monetarist criticism of New Deal policy, originally posed by Clark Warburton but most persuasively presented by Milton Friedman and Anna Schwartz, focused on the impact of the external dollar drain generated by Great Britain's departure from the gold standard in 1931 and the internal drain created by the crash itself. To the extent that the Federal Reserve Board failed to understand the links between bank

failures, runs on deposits, and the international pressure on the dollar, it also failed to recognize the inappropriateness of the classical policy response undertaken—the raising of discount rates.[8]

It was not solely criticisms of actual government policy in which these writers indulged to explain the Depression's unusual severity. In some cases they also criticized the government for not doing enough. They maintained that the private sector moved too quickly in the mid 1930s in raising prices. As a result, by 1937 consumers showed an increasing resistance to higher prices, owing to their desire to liquidate the large debt incurred earlier in the decade and to maintain their savings in uncertain times. The average propensity to consume subsequently fell and a recession took hold.[9] Pro-competitive policies presumably were the solution, but government action (such as the creation of the Temporary National Economic Committee to Investigate the Concentration of Economic Power) was too little, too late, and often inspired more by political than economic concerns.

The notion that the Great Depression was essentially an outgrowth of policy failures was problematic at best. To be sure, one could with the benefit of hindsight engage in some forceful criticism of economic policy during the 1930s, but it seems that was and is a futile exercise. After all, in many respects the Roosevelt administration (especially the Board of Governors of the Federal Reserve System) did what many of its predecessors had done in the face of a cyclical downturn. One must ask, therefore, how government officials suddenly became so inept in the inter-war period. Moreover, the question remains: why were traditional policies that had seemingly worked in the past and that represented a theoretical consensus among generations of economists suddenly so perverse in the 1930s? What had changed in the structure and operation of the national economy in the inter-war period that made orthodox economic theory and policy inadequate?

While concern with the problem of economic instability has punctuated the history of economic thought for several centuries, it is hardly surprising that the Great Depression of the 20th century inspired a vast literature on the issue of investment failure and the maladjustment of investment plans.[10] In particular, the persistence of the Depression and the over-a-decade-long weakening of economic performance that it caused prompted several investigators to formulate a "stagnation thesis" concerning mature capitalist economies; it is within this context

that we can assess the work of those who regarded the crisis of the 1930s as a secular phenomenon. To their investigations, I now turn.

The literature that focused on long-run factors in the American Depression was distinctive in holding that the New York stock market crash of 1929 was less important than certain developments in the economy that had deleterious impacts throughout the inter-war period. Some authors—for example, Seymour Harris and Paul Sweezy—argued that during the 1920s the distribution of national income became increasingly skewed, lowering the economy's aggregate average propensity to consume. Others, such as Charles Kindleberger, W. Arthur Lewis, and Vladimir Timoshenko, focused on a secular shift in the terms of trade between primary products and manufactured goods, due to the uneven development of the agricultural and industrial nations. This change in the terms of trade, they argued, created a credit crisis in world markets when bad crop yields obtained in 1929 and 1930. At the same time that agricultural economies were losing revenue because of poor harvests and declining world demand, the developed economies were contracting credit for the developing nations and imposing massive trade restrictions such as America's Hawley-Smoot Tariff of 1930. As the agricultural nations went into a slump, the industrialized countries (most notably the United States) lost a major market for their output. Hence, the downturn of 1929 became more and more severe.[11]

Industrial organization economists, Adolf Berle and Gardiner Means most prominent among them, sought an explanation of the Depression in the increasing extent of imperfect competition in the American economy of the early 20th century.[12] Downward inflexibility of prices after the crash of 1929, caused by the concentrated structure of American industry and the impact of labor unions, intensified the effective demand problem and prevented the price system from reaching a new equilibrium at full employment. On the one side, "sticky prices" further limited the already-constrained purchasing power of consumers. On the other, to the extent that noncompetitive pricing predominated in the capital goods sector, producers were less willing to buy new plant and equipment. Excessive real wages, helped up by union pressure and New Deal policy, further contributed to persistent disequilibrium in labor markets. Price inflexibility thus inhibited the recovery of both final product demand and investment demand.[13]

There were several weaknesses in all these theories. Those authors who focused on an increasingly unequal distribution of income or on administered pricing did not marshal unambiguous evidence to make their case, nor did they specify precisely how such factors came to life in the inter-war economy. While Berle and Means claimed to have demonstrated a relative price inflexibility in concentrated economic sectors during the 1930s, their critics were unconvinced. Insofar as the aggregate price-level fell by one-third in the early 1930s, they argued, how inflexible could the general price system have been? The sticky prices thesis also relied on an assumption of perfect competition in all markets other than those where the imperfections existed. If this assumption were relaxed, the thesis did not hold. As Michal Kalecki pointed out, if "sticky wages" were responsible for the length of the Depression, it followed that a reduction in wages would have eliminated the persistent disequilibrium. If, however, there were imperfections in product markets as well, a reduction in nominal wages would have lowered real wages, thereby exacerbating the effective demand crisis. Only if price adjustments were general and were followed *instantaneously* by increased investment would the sticky prices thesis concerning the 1930s hold.[14]

The terms-of-trade argument similarly had a major flaw. The major weaknesses in the American economy of the inter-war period were domestic, and the collapse of demand on the part of primary product-exporting nations was not highly relevant. America's dependence on foreign markets was not significant in the inter-war years. During the 1920s, exports as a share of the nation's gross national product had annually averaged only a bit over 5 percent. A fall in export demand then could not have played a major role in worsening or prolonging the Great Depression.[15]

Continued research on secular mechanisms in the Great Depression necessarily relied upon the work of Joseph Schumpeter on cyclical processes in modern economies. Schumpeter held that the inter-war period was an era in which three major cycles of economic activity in the United States (and Europe) coincidentally reached their nadir.[16] These cycles were 1) the Kondratieff, a wave of 50 or more years associated with the introduction and dispersion of major inventions; 2) the Juglar, a wave of approximately 10 years' duration that appeared to be

linked with population movements; and 3) the Kitchin, a wave of about 40 months' length that had the appearance of a typical inventory cycle.

Schumpeter's efforts were paralleled by those of Simon Kuznets and, more recently, Moses Abramovitz and Richard Easterlin. Kuznets was successful in documenting the existence of waves of some 15 to 20 years in length. These periodic swings, according to Abramovitz, demonstrated that in the United States and other industrialized countries "development during the 19th and early 20th centuries took the form of a series of surges in the growth of output and in capital and labor resources followed by periods of retarded growth." Significantly, "each period of retardation in the rate of growth of output . . . culminated in a protracted depression or in a period of stagnation in which business cycle recoveries were disappointing, failing to lift the economy to a condition of full employment or doing so only transiently."[17]

Most, if not all, of the "Kuznets Cycle" literature was concerned with the explicit dating of the long swings that appeared in the data. It seemed clear that these swings involved changes in resource endowments (including the size of population) and alterations in the intensity of resource utilization.[18] The specific behavioral mechanisms that could account for the Kuznets phenomenon (and its precise manifestation in the United States in the 1930s) were necessarily the focus of continued debate. It is in this context that we can understand the large literature on "secular stagnation."

Broadly speaking, the so-called stagnation theorists of this century grouped into those who evinced a "Schumpeterian pessimism" about the declining incidence of innovations and new technologies, and those who shared a "Keynes-Hansen pessimism" concerning the shrinkage of investment outlets owing to a decline in the rate of population growth.[19] Both groups agreed that stagnation or, as it was sometimes called, economic maturity involved a "decrease of the rate of growth of heavy industries and of building activity . . . [and] the slowing down of the rate of growth of the total quantity of production, of employment, and usually of population. It [also involved] the rising relative importance of consumer goods." They also believed that "the appearance of industrial maturity raise[d] profound questions concerning the ability of an enterprise system to produce a progressive evolution of the economy . . ."[20]

The "Keynes-Hansen" pessimism held that as population growth fell off and as major markets in housing, clothing, food, and services consequently contracted, outlets for new investment were quickly limited to those created by the introduction of new technology or new products. To the extent that recovery from a depression required investment outlays above and beyond the level of depreciation allowances, an upturn would be dependent on the availability, in an adequate volume, of opportunities in new industries and processes. If these were not forthcoming, as some stagnation theorists believed was true of the 1930s, the only avenue out of the slump would be deficit spending to augment consumer purchasing power. But political barriers to such government action in the thirties left many economies mired in an environment of excess capacity and inadequate demand. Needless to say, contrary to popular perceptions, it was not the New Deal that demonstrated the efficacy of restitutive fiscal spending, but rather World War II. While hardly inspired by specific economic concerns, President Franklin Roosevelt's "Arsenal of Democracy" nevertheless contained rather vivid policy lessons for economists, politicians, government officials, and the public at large.[21]

There was a serious inadequacy in the arguments concerning economic maturity and population growth. The theory conflated population with effective demand. As one critic put it,

> [i]t is sometimes maintained that the increase in population encourages investment because the entrepreneurs anticipate a broadening market. What is important, however, in this context is not the increase in population but in purchasing power. The increase in the number of paupers does not broaden the market. For instance, increased population does not mean necessarily a higher demand for houses: without an increase in the purchasing power the result may well be crowding of more people into the existing dwelling space.[22]

"There is no rigid physical relation," another commentator declared, "between the number of families in the country and the amount and value of the housing they will pay to occupy. Demand depends not only on their number, but their incomes."[23] A more systematic theory had to argue that, for secular reasons, the purchasing power of the population, rather than the size of the population itself, fell in advanced capitalist systems.

Much like the population theory, the variant of the stagnation theory that focused on the decline of innovation and technical change as a factor in the distress of the 1930s embodied many inconsistencies and questionable assertions. The lower rate of technical change and the decline in the number of major innovations, which were posited as a primary cause of the inability of the economy to recover in the course of the Great Depression, were deemed to be exogenous factors derived from the state of technical knowledge at the time.[24] Little justification of this position was offered. Furthermore, meager attention was given to a seeming contradiction in the argument. If during the 1930s little technical change took place, why did not the eventual reduction in the amount of capital equipment available (owing to firm exits and the periodic obsolescence of plant) result in a revival of capital goods output?[25]

There was one further objection to the technology argument that was apparent to some of the stagnation theorists themselves. There was an implicit assumption that new innovations were always of the capital-using type; thus, had innovation occurred in the 1930s, net investment demand would have absorbed large capital outlays, thereby generating a robust upturn. But if innovations were capital-saving, this argument foundered. Heavy investment in earlier stages of economic growth (in, for example, railroads, motor cars, and housing) may have given way (in later periods) to newer forms of investment in managerial technique and information processing. These latter innovations may not have absorbed very large amounts of investment expenditure at all. While they may have therefore improved the organization and efficiency of production, their impact on aggregate spending would not have been adequate to the task of systematic recovery. As Alvin Hansen succinctly put it in 1941, "[t]he transformation of a rural economy into a capitalistic one is something distinctly different from the further evolution of a society which has already reached the status of a fully-developed machine technique."[26]

It was the Austrian economist Josef Steindl who provided the most sophisticated version of the economy maturity idea. Not surprisingly, he did so in part by explicitly situating the Great Depression in the United States within a long-term development framework. His work linked economic stagnation directly with the behavior of capitalist enterprise, thereby avoiding the mechanistic qualities of many of the

stagnation arguments as well as their frequent appeals to exogenous factors. Steindl's version of the maturity thesis was that long-run tendencies toward capital concentration, inherent in capitalist development over time, led to a lethargic attitude towards competition and investment.[27] Specifically, the emergence of concentrated markets made difficult, and in some cases impossible, the expulsion of excess capacity required for revival after a trough.

Steindl argued that in any given industry there existed a hierarchy of firms based upon the relative level of prime production costs. Such a hierarchy existed because firms would have grown at different rates, entered the industry at varying times, and therefore installed equipment of assorted degrees of cost-effectiveness given their past profit performance (and their differential access to outside funds). The gross margin, E_i, for the ith firm, therefore, could be expressed as:

$$E_i = P_i Y_i/(wL_i + M_i)$$

where P_i was the firm's output price, Y_i the level of output, and where w, L_i, and M_i were respectively the wage rate, the size of the hired labor force, and the level of materials costs facing the firm. (Steindl assumed, at least initially, that the wage rate was not employer-specific.) This gross margin, Steindl held, was the fundamental competitive resource of the firm. It provided internal funds for investment and the securing of outside loans. For Steindl it was obvious that the magnitude of a firm's internal funds was often directly proportional to its ability to secure credit by means of bond sales, equity issues, and bank loans. This was primarily due, in his view, to the "good will" that was commonly associated with firm size. Larger firms clearly had access to funds (both internal and external) far in excess of those for smaller firms.

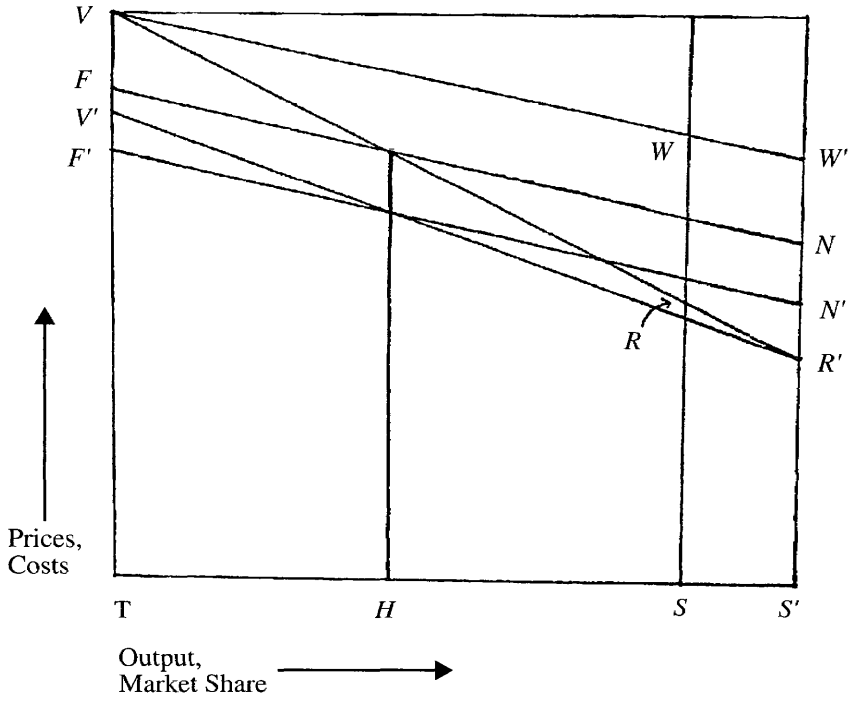
In addition, a larger gross margin would enable a firm to initiate sales and advertising efforts and quality campaigns (and, attendant upon this, product differentiation) that could possibly allow it to appropriate other (less powerful) firms' markets. Most important, the gross margin could provide the means with which a firm might innovate and apply technically superior methods to production. The resultant savings in costs would be the basis of price cuts to drive competitors out of

the market. Smaller firms that could not introduce these superior techniques would thereby experience a shrinkage in profit margins resulting from the price war. The inability of these firms to employ new techniques might simply be due to the fact that they could not pay the price to install them. In fact, to the extent that patent laws existed, they might not have the funds for research and development efforts to deploy new methods themselves.

Figure 1 provides a graphical depiction of the competitive process of which Steindl conceived. The ray *VR* expresses the cost hierarchy of the industry, with the most inefficient firms at the higher point of the ordinate—their output is lower, in keeping with the notion of their minimal share of the market. Assuming that a standard mark-up pricing rule is used in the industry, *VW* describes a gradient of prices that expresses the differences in costs incurred by the various firms. Triangle *RVW* is thus the gross margin of the total industry. The hierarchy of profit margins becomes immediately apparent. The firms with the larger margins (owing to lower costs) have larger shares of the market by assumption. Assume that demand increases in the industry, with the leading firms expanding output to *S'* from *S*. Their large margins allow for the introduction of cost-cutting techniques at *R'*. Should the resulting increase in profit margins cause the leading firms to accumulate such that their rate of expansion rises above the market rate, a price cut ensues in the struggle for a greater share of the market. At the new (lower) price level *FN*, the least efficient firms are forced out due to the excess of their production costs over the market price. Producers *TH* are thus eliminated.

Consider a situation where the market in question is more concentrated than in the foregoing case. Presumably, the cost differentials among firms are less severe insofar as, over time, a small number of firms have become dominant by means of similar technology, sales efforts, and so on. Thus, the spectrum of costs structures is now *V'R'*, not *VR'*. This being the case, the expulsion of a certain number of firms from the industry by a competitive drive for market share requires a larger price reduction than in the first case. The price level *FN*, sufficient to expel producers *TH* before, now threatens the economic existence of no one. To expel firms *TH*, at this point, would require a further cut in the price level to *F'N'*. The unwillingness to engage in more severe price cutting of this kind stems from the fact that large

Figure 1 Schematic Representation of the Competitive Structure of an Industry



SOURCE: Steindl (1976), p. 44 (Figure 3).

reductions in price can invite retaliation that may generate a downward spiral of the price structure in general. In other words, there is the risk that the market, to use modern business parlance, may be "spoiled."[28]

Price inflexibility in concentrated industries is intensified during depressions, and this has an important impact on the response of firms to economic fluctuations. The net revenue of firms tends to be so jeopardized in a slump that strategies of price reduction are viewed as unfeasible. There may even be incentives to raise prices in order to compensate for the reduction in the volume of sales—resulting in what James Tobin once named, during the celebrated 1962 confrontation of the Kennedy administration with the national steel industry, the

"Blough Effect."[29] For a given industry, therefore, the impact of a decline in the rate of growth (i.e., the aggregate rate of capital accumulation) will depend on the extent to which the industry is concentrated. In a sector where the squeezing out of competitors is relatively easy, large declines in demand will result in the reduction of profit margins (for each firm) as prices are cut. By contrast, in a concentrated market, profit margins will tend to be inelastic in the face of reductions in demand.

At the macroeconomic level, the implications of inelastic profit margins for cyclical performance are most profound. Insofar as price reductions do not obtain in the event of a decline in the rate of growth, the necessary adjustment of sectoral rates of expansion to the aggregate rate will require reductions in the rate of capacity utilization. When viewed in terms of the sector as a whole, if prices are fixed, output must fall to bring gross margins down. If industrial structure were more competitive, excess capacity would not result from a decline in the accumulation rate; rather, prices would fall.

Reductions in capacity utilization imply not only declines in national income but also increases in unemployment. In the presence of underutilized capacity, firms will be increasingly disinclined to undertake any net investment. A cumulative process is thereby established wherein a decline in the rate of growth, by generating reductions in the rate of capacity utilization, will lead to a further decline in the rate of expansion as net investment is reduced. Individual firms, by believing (in another striking example of the "fallacy of composition") that decreases in their own investment will alleviate their own burden of excess capacity, merely intensify the problem economy-wide. The greater the proportion of the nation's industry that is highly concentrated, the greater the tendency for a cyclical downturn to develop into a progressive (and seemingly endless) decline.

A further consequence of the existence of highly concentrated sectors in the national economy is the impact it has on effective demand. The higher profit margins secured by large firms are indicative of an increasingly skewed distribution of output that, when combined with the reluctance of firms to invest (or otherwise spend) their revenues, generates a rising aggregate marginal propensity to save. Declining effective demand is combined with rising excess capacity when a slump occurs. The potential for recovery, barring the intervention of

exogenous shocks, government spending, or the penetration of foreign markets, is therefore greatly lessened.

What is central to Steindl's thesis is the conception of long-term alterations in industrial structure that make the economy as a whole more incapable both of recovering from cyclical instability and of generating continued growth. The emergence of oligopolistic market structure is taken to be inherent in the process of capitalist development insofar as that process is coterminous with the development of large-scale manufacturing techniques and of financial concentration. Economic maturity and the threat of stagnation result because the growing incidence of "[o]ligopoly brings about a maldistribution of funds by shifting profits to those industries that are reluctant to use them."[30] In order to escape stagnation, capital must be redistributed either to more competitive sectors or new industries, although such shifts can only proceed (given the difficulties of obtaining technical knowledge and good will in new product lines) with considerable time lags.

Indeed, during the Great Depression, some members of Roosevelt's "Brain Trust," such as Rexford Tugwell, argued forcefully for the imposition of an "undistributed profits tax" to prevent the accumulation of corporate surpluses and to stop the privilege firms had always enjoyed of investing their surpluses at will. The incentive of the tax, it was claimed, would lead firms to issue more of their surpluses in the form of productive investment commitments or in the form of dividends. There would thus obtain either direct productive expenditure, through firm-level investment or the allocation of funds to stockholders that would then be subject to the discipline of private capital markets. As a result, the mobilization of capital resources would be more efficient and more likely to generate recovery. Embedded in the Revenue Act of 1936, the undistributed profits tax proved to be one of the most unpopular and controversial pieces of legislation to emerge from the New Deal; it was repealed in 1938.[31]

Interestingly enough, no clear relationship exists between stagnation and concentration in American industry during the Great Depression. By applying a static conception of market structure, investigators have tended to focus on the number of firms in an industry as the primary determinant of a sector's competitiveness. The difficulty lies in the fact that cross-section data on firm numbers provide no information

concerning those differentials in costs that are the basis of pricing strategies. Given large disparities in techniques and costs, it is possible that a small number of enterprises may, over time, engage in large amounts of competition. Conversely, a sector with a large number of identical firms may prove to be quite lethargic, given the absence of cost differentials that can be competitively exploited. Not surprisingly, therefore, the historical record of the 1930s seemingly does not give Steindl's argument unqualified support.

As I demonstrated in my 1987 book, *The Great Depression: Delayed Recovery and Economic Change in America, 1929–1939,* some highly concentrated industries were relatively vibrant during the decade, while others less so appeared virtually moribund.[32] In addition, the data on sectoral shares of wages in the value added, which Steindl cited as indices of competitiveness, were similarly misleading.[33] A rising (falling) trend in the wage-share may not necessarily indicate a competitive decline (noncompetitive rise) in the industry's gross margin, but rather may demonstrate changes in the labor intensity of that sector's technology over time. Clearly, the evidence concerning market structure was a frail reed upon which Steindl attempted to base his theory. Whether a given industry is dynamic or not involves several issues that are not directly linked with numbers of firms or the extent of capital concentration—issues having to do with the industry's position in the economy's input-output matrix, the durability of its output, and the relative maturity of the industry with respect to the shifting composition of the economy as a whole.

The weaknesses in Steindl's analysis do not, of course, obscure the importance of his contribution to an understanding of the Great Depression in particular and of maturity in capitalist economies in general. That importance derives from the fact that Steindl attempted to situate the decade of the 1930s within a larger historical framework. In this context, he could view the Great Depression as the outcome of an interaction between cyclical forces dating from 1929 and tendencies of long-run development spanning a half-century or more. In short, he was thus able to understand the Great Depression as a historical problem.

Steindl's conception of long-term capitalist development was obviously embedded within a theoretical tradition linked with the work of the classical economic theorists—Adam Smith, David Ricardo, and

Karl Marx. That tradition posited the concentration of capital as the major expression of secular growth. To attempt to grasp capitalist development in terms of the increasing concentration of capital, as the classical theorists and Steindl did, it was necessary to locate the primary determinants of growth in the production process itself—i.e., in the firm. Changes in the role of markets—markets being defined as both loci of purchasing power and as collections of needs for specific kinds of goods—had no place in the theory.[34]

Conceptually, capitalist economies may avoid (and, in the latter half of this century, have avoided) tendencies toward stagnation through exogenous stimuli such as war, territorial expansion, international monetary networks that privilege some industrial systems relative to others, and of course through product innovation and technical change. Indeed, it is this last potential avenue for expansion that has been both common in fact and most germane to the extension of the neo-Keynesian, neo-Marxian, and neo-Ricardian theoretical frameworks. Even so, such compositional transformations in modern economies occasion a great deal of instability and unpredictability in performance.

Secular changes in the growth performance and potential of various industries must offset declines in certain groups with rises in others. The chance that such changes in sectoral performance will proceed smoothly is small, and economic history provides ample testimony to this fact.[35] While the possibility of terminal stagnation has not been realized in advanced capitalist states, economic performance in those economies throughout the last four decades of this century has nevertheless been erratic at times and often premised more on external developments than internal mechanisms of recovery and expansion.

Secular transitions in development involve the decline of old industries and the rise of new ones. These alterations in the composition of national output tend to be discontinuous and disruptive, not because of imperfections in markets but rather because of forces inherent in the accumulation of capital over time. First, the ongoing expansion of the capitalist economy is coterminous with the advance of scientific and technical knowledge, which transforms production techniques, cost structures, and the availability of raw materials, and which creates entirely new inputs and outputs. Consider, for example, the emergence of fossil fuels, the replacement of natural fibers with syn-

thetics, and the rise of internal combustion as a means of locomotion. Entire industries are made obsolete or virtually so, while new ones are created. Second, the structural milieu in which product and technical changes take place is itself a product of economic growth.

Concentration of capital may lead to unequal access to investment funds, which obstructs further the possibility of easy transitions in industrial activity. Because of their past record of profitability, large enterprises have higher credit ratings and easier access to credit facilities, and they are able to put up larger collateral for a loan. Equity issues by such firms are more readily financed and sold, and such firms can avoid takeovers more easily than small firms. Large firms, too, may have commonalities of interest with financial institutions through interlocking directorates. All these factors may impede the flow of capital out of old and into new sectors, thereby making shortfalls in aggregate economic performance much worse.

Compositional and structural change in economies may also precipitate serious unemployment problems that interfere with the achievement of full capacity output. New industries may have differing capital intensities and skill requirements, relative to older sectors, that complicate (or possibly even prevent) the absorption of unemployed workers. The problem may be twofold: newer industries may not grow fast enough to provide employment opportunities for those laid off in older sectors; but even if higher growth rates are achieved, the newer industries may require different amounts and altogether different kinds of labor for their production. Structural unemployment may be the troubling and persistent consequence. These were, in fact, many of the specific findings of my research on the Great Depression reported over the past decade.

Finally, changes in the relationship of a national economy to the world economic system may also be responsible for wide fluctuations in macroeconomic behavior. A resurgence of competition from other national systems previously excluded from or inadequately prepared for international commerce may seriously affect the fortunes of domestic industries grown used to protected or exclusive markets. Transformations in international currency systems, whereby a nation's monetary unit that had previously served as *numeraire* and means of international clearance is rapidly integrated into a general floating currency system, will also profoundly change the performance character-

istics of that economy. Inflationary pressures at home now may translate into an export boom as a currency is devalued, while deflationary patterns may yield an upswing in imports to the detriment of domestic producers. Policy flexibility and independence may also be constrained as a nation's economy becomes more open to economies elsewhere. Domestic changes in fiscal and monetary policy will now have international trade consequences as well. Modulations of interest rates, for example, will affect the flow of capital across national borders as investors compare rates of return in various nations. Interestingly enough, Keynes himself suggested to Roy Harrod in 1942 that "the whole management of the domestic economy depends upon being free to have the appropriate rate of interest without reference to the rates prevailing elsewhere in the world. Capital control is a corollary to this."[36]

National economic performance may also, in a mature setting, require increasing involvement of the state itself. Maintaining sufficient outlets for net investment expenditure might possibly involve deficit spending to bolster effective demand, direct government purchases of goods and services (particularly of public goods such as infrastructure and military and law-enforcement equipment), and government oversight of the penetration of foreign markets. These efforts might conceivably be paralleled by rising outlays by private firms on sales efforts, distribution mechanisms, and various means to enhance consumer credit.[37] While for most neoclassical economic theorists, fiscal and monetary mechanisms stand as instruments of periodic countercyclical policy, for neo-Keynesian, neo-Marxian, and neo-Ricardian economists, governmental involvement in mature economies is a permanent (and ever-increasing) feature of modern industrial states.

Steindl had, of course, focused his work on the inter-war economic crisis of the 1930s. His central theses regarding maturity and stagnation in advanced capitalist economies seemed particularly compelling when viewed in terms of the long-run historical experience of the Great Depression. Yet both the postwar record, at least in the case of the United States, and some of the theoretical lacunae in his earlier claims led Steindl to modify some of the arguments of his 1952 book. With the 1976 republication of his *Maturity and Stagnation in American Capitalism*, Steindl allowed that technical innovation, product development, public spending, and research and development initiatives might

provide the means to escape from investment inertia. Even so, he was extremely concerned that most accumulation strategies in mature capitalist nations would be focused on military-industrial activity and war itself. Using both public and private investment funds for other purposes, while obviously desirable, would be "exceedingly hard" given "the workings of political institutions."[38]

The wisdom (not to mention the prescience) of Steindl's 1976 observations is made apparent as soon as one surveys the more recent evolution of American capitalism. American accumulation in the latter half of this century has, on the one side, confirmed many of Steindl's suppositions regarding expansion in advanced industrial states. On the other, it has demonstrated both the unique and abiding flexibility of capitalism in the face of contradictory tendencies toward underutilization and the importance (even at times the possible centrality) of political and social forces often understood by economists to be exogenous. In all these respects, contemporary history portrays the conceptual power and importance of what Steindl had to say when he first examined the crisis of the 1930s. But it also reminds us of the unyielding impacts of contingency and human agency in economic performance over time.

World War II had achieved in the United States, of course, what the New Deal could not—economic recovery. With the start of war in Europe, the unemployment rate had already begun to fall, so that by the time of the Japanese naval offensive at Pearl Harbor, only 7 percent of the labor force remained idle. American entry into the war brought almost instantaneous resolution of the persistent economic difficulties of the inter-war years. Between 1939 and 1944, the national product, measured in current dollars, increased by almost 125 percent, ultimately rising to $212 billion by 1945.

Yet as World War II came to a close, many economists and business people worried about the possibility of a drop in the level of prosperity and employment to one far below that of the war. But these apprehensions proved to be unwarranted.[39] By 1946, gross national product fell less than the postwar reduction in government spending; unemployment did not even reach 4 percent; consumer spending did not fall at all, and eventually rose dramatically. Although recessions occurred between 1945 and the mid 1970s, most of them lasted only about a year or less, and none of them remotely approached the sever-

ity of the Great Depression of the 1930s. During these three decades, American output steadily increased, with only minor setbacks. According to the Federal Reserve Board's index, manufacturing production doubled between 1945 and 1965, and tripled between 1945 and 1976.

Such robust economic performance is hardly surprising in wartime—especially when conflict is global and, with a few exceptions, kept outside of national boundaries. What is most striking about the American economic experience linked with World War II was the enduring growth and prosperity of the postwar years. Consumption and investment behavior played a major part in this great prosperity of the late 1940s and 1950s. As soon as Germany and Japan had surrendered, private and foreign investment in the United States rose quickly. On the domestic side, reconversion was itself an investment stimulus. Modernization and deferred replacement projects required renewed and large deployments of funds. Profound scarcities of consumer goods, the production of which had been long postponed by wartime mobilization needs, necessitated major retooling and expansion efforts. Even fear of potentially high inflation, emerging in the wake of the dismantling of the price and wage controls of the war years, prompted many firms to move forward the date of ambitious and long-term investment projects. On the foreign side, both individuals and governments were eager to find a refuge for capital that had been in virtual hiding during the war itself. Along with a jump in domestic investment, therefore, a large capital inflow began in late 1945 and early 1946.

Domestic consumption was the second major component of postwar growth. Bridled demand and high household savings due to wartime shortages, rationing, and controls, coupled with the generous wage rates of the high-capacity war economy, all contributed to a dramatic growth in consumer spending at war's end. The jump in disposable income was bolstered by the rapid reduction in wartime surtaxes and excises. And the baby boom of the wartime generation expressed itself economically in high levels of demand for significant items like appliances, automobiles, and housing. G.I. Bill benefits additionally served to increase the demand for housing and such things as educational services, with associated impacts on construction and other industrial sectors.

Foreign demand for American exports grew rapidly in the immediate postwar years. In part, the needs of devastated areas could only be met by the one industrial base that had been nearly untouched by war-related destruction. Explicit policy commitments to the rebuilding of allied and occupied territories, such as the Marshall Plan in Europe, also served to increase the foreign market for the output of American industry. Even so, one of the most significant contexts within which the impressive postwar growth of the American economy took place was the unique and special set of arrangements developed for international trade at the Bretton Woods Conference in 1944.

When the allied nation's financial ministers gathered at Bretton Woods in New Hampshire just before the war's end, they were concerned to reconfigure world trade and financial flows such that the disputes so characteristic of the inter-war years of 1919–1939 could be avoided and stability maintained. Along with the creation of an International Bank for Reconstruction and Development and of an International Monetary Fund, the conference decided to establish fixed exchange rates between the U.S. dollar and all other internationally traded currencies. The value of the dollar itself was set in terms of gold at $35 per ounce. This installed a benchmark against which the value of all other currencies was measured. As the American economy was, by far, the most powerful at the time, it seemed prudent and indeed necessary that its currency play such a central international role.

American postwar prosperity and the benefits of world economic leadership continued throughout most of the 1950s. The added fiscal stimulus of the Korean War also helped to maintain the high levels of growth and employment characteristic of the decade. Republican President Dwight Eisenhower, carrying on in the tradition of his Democratic predecessor Harry Truman, repeatedly committed his administration to the practice of compensatory demand management. But the prosperity of the 1950s, while robust and impressive, nevertheless weakened by 1957. This set the stage for the arrival of a new brand of economics in Washington, explicitly (and self-consciously) imbued with the doctrines of Keynesianism.

From the "New Frontier" policies of John Kennedy, to the "Great Society" agenda of his successor Lyndon Johnson, through the declaration of a "New Federalism" by Richard Nixon, there ensued an era of sustained central government intervention in the nation's economic

life. The self-assurance of many (but not all) of the "new" economists of the early 1960s that the goal of achieving simultaneously acceptable levels of unemployment and inflation could be realized has more recently been shattered. But throughout the 1960s and much of the 1970s, and for some even during the 1980s, the perceived obligation of government to secure overall economic stability was not seriously questioned and remained one of the more important changes of 20th-century American economic history.

Historical specificity notwithstanding, American economic performance in the latter half of this century appears to conform in many major respects to the general analytical propositions derived from a secular analysis of inter-war economics. The ability to forestall and/or overcome tendencies toward economic stagnation has depended upon a varied and uncommon set of circumstances both global and domestic in their genesis and impact. But a continuation of such a charmed existence is apparently no longer possible. Josef Steindl himself noted, in 1976, that "the cheerful extroverted era of [postwar] growth has apparently come to an end." He held that the reasons for this were "the reduction of tension between the superpowers . . . the increase in tension within the capitalist countries . . . and . . . the emergence of environment, raw material, and energy problems . . ." And, in words that today seem as apposite as they did over 20 years ago, Steindl noted that

> the political and psychological basis of the postwar boom has been sapped by such developments as these: public spending . . . [has] decreased . . . the competition in technology . . . and education unleashed by Sputnik has flagged; the development in these fields has been dominated instead by [an] internal reaction against intellectuals and youth . . . the cooperation between the capitalist powers has broken down . . . [and] the internal stresses of groups contending for shares in the national income have shown themselves [to be] inflationary.[40]

In the midst of a return to the weak and intermittent growth of earlier decades of this century, there has also obtained an altogether reactionary (re)orientation of fiscal and monetary policy. A resurgence of general equilibrium approaches to cyclical phenomena has prompted the formulation of a "new classical macroeconomics" and the rise of a "rational expectations school."[41] These intellectual developments, linked with political events having to do with the backlash against the

progressive politics and redistributive programs of the New Frontier and the Great Society, eliminated Keynesian thinking from the formulation of responses to contemporary economic problems. Thus, we have the more recent attempts to balance fiscal expenditures (and, until recently, tighten monetary variables) in the face of unemployment and shortfalls in national product. In other words, we witness an attempt to embrace what Keynes once derisively called "the Treasury View."[42]

There is, of course, a major difference between past decades and today in this regard, at least in the United States. Timid countercyclical policy in the inter-war period was to some extent the result of ignorance and misplaced confidence in old remedies. Today, slow-growth policies are derived from the politics of reaction and resentment—a politics arrayed against the reformist agendas and civil rights initiatives of the 1960s. Whatever its social and cultural roots, this revanchist spirit has grounded its appeal, to a broad segment of the American electorate, in the pessimism and antagonism attendant upon erratic economic growth since the oil price shocks and hyperinflation of the 1970s. As the macroeconomic "pie" has grown more slowly and less consistently, distributional struggles—often deployed along racial, ethnic, and gender lines—have become more intense. Insofar as the national economy falls short of a full-employment approximation of potential output, the justifications for reversing the distributional gains of the activist fiscal policies of the 1960s gain ever greater force. To put it in the words of Josef Steindl once again, contemporary "arguments against full employment have got the upper hand in the councils of the powers, and thus we witness stagnation not as an incomprehensible fate, as in the 1930s, but stagnation as a policy."[43] The ironies and the poignancy of this state of contemporary affairs are made strikingly clear as soon as we reflect upon the Great Depression as a significant and coherent historical problem.[44]

Notes

1. For an exposition of the business confidence argument, see Morgan (1935).
2. See Fisher (1930, 1932). Also see Schumpeter (1946), Roepke (1936), Noyes (1930), Persons (1930), and Viner (1936). The notion of excessive speculation and "wild" stock prices was challenged by Sirkin (1975). Lionel Robbins (1934) argued that the crash itself may have been generated by attempts by the Federal

Reserve, in 1927, to reverse the net gold inflow in order to alleviate the destabilizing pressures on sterling.

3. See Temin (1976) for a contemporary statement of this view. Also see Mishkin (1978).
4. See Cassel (1932, p. 76).
5. See Galbraith (1972, pp. 93, 192). Also compare Lewis (1950). The fact that the economy had significantly weakened before the crash was demonstrated by Moore (1950). Also see Erickson (1972).
6. As most forcefully explained by Temin (1976).
7. For a more recent statement, see Weinstein (1980). Also see Brockie (1950).
8. See Friedman and Schwartz (1963) and Warburton (1944, 1945a, 1945b, 1946).
9. See Roose (1948, 1954) and Slichter (1938).
10. I have surveyed much of this literature (published in English, and as it applied to the United States experience) in Bernstein (1985).
11. See Harris (1948), Sweezy (1968), Lewis (1950, pp. 55–56), Kindleberger (1973, pp. 292–293), and Timoshenko (1933, pp. 541–543).
12. See, for example, Means (1935) and Means and Berle (1968).
13. See Reynolds (1939) and Thorp and Crowder (1941). Interestingly enough, Backman (1939) challenged the empirical relevance of the administered prices theory and argued (on p. 486) that in order to understand the low levels of output that prevailed during the 1930s, one had to examine the "character of the market; durability of the product; capital goods versus consumers' goods; joint demand, stage of development of an industry; [and] necessaries versus luxury products."
14. See Kalecki (1969, pp. 40–59).
15. See U.S. Department of Commerce (1975, part 2, series U201–206, p. 887).
16. See Schumpeter (1939, vol. 2, pp. 905–1050).
17. See Abramovitz (1961, p. 241).
18. See Kuznets (1958), Abramovitz (1961), and Easterlin (1968).
19. As suggested by William Fellner (1954). It should be pointed out that Fellner had earlier rejected all arguments concerning stagnation on the grounds that none of their propositions could be formulated in behavioral terms. See Fellner (1941).
20. The quotations are taken from McLaughlin and Watkins (1939, pp. 1–14).
21. See Hansen (1939) and Keynes (1937). A complete, if rather polemical exposition of the stagnation thesis may be found in Terborgh (1945).
22. From Kalecki (1943, p. 88). Also see Sweezy (1940).
23. From Terborgh (1945, p. 181).
24. See Hansen (1941, p. 279ff) and Kalecki (1962). Kalecki did concede, on pp. 134 and 147, that innovations might not be wholly exogenous and might, in fact, be influenced (with appreciable lags) by changes in profit rates, output, and the size of the capital stock. Even so, he also argued, elsewhere, that the exogeneity of technical change indicated that "long-run development [was] not inherent in the capitalist economy." See Kalecki (1968, p. 161).
25. As admitted by Kalecki (1971, p. 30).
26. Hansen (1941, pp. 310, 314–315). See also Kalecki (1968, p. 159).

27. The following exposition, both textual and graphic, is derived from Steindl (1976, Chapters 2–5, 9, 13) and Steindl (1945, pp. 48–54, 63–66). The idea that large concentrated firms eschew major investment opportunities, owing to a desire to maintain their dominant market position, also played a role in the conception of economic stagnation developed by Michal Kalecki. See Kalecki (1943, p. 92) and Kalecki (1968, p. 159).
28. This particular assertion obviously ties in with the kinked demand curve theory of oligopoly. See, for example, Sweezy (1939).
29. See Tobin (1975). This counter-intuitive price effect was named after Roger Blough, then head of the United States Steel Corporation.
30. From Steindl (1976, p. xv).
31. See Bernstein (1987, pp. 190–191).
32. Explicit documentation for these claims may be found in Bernstein (1982, Chapters 3–4).
33. See Steindl (1976, Chapter 8).
34. This is not to say that these theorists did not address the problem of effective demand, but rather that their conception of the role of markets was fairly limited in scope. Steindl, in particular, did not fully consider the effect of investment strategies geared toward product diversification and sales efforts.
35. See, for example, Aldcroft (1977), Bernstein (1987), Dahmen (1970), and Svennilson (1954).
36. See Crotty (1983, pp. 59–65) and Keynes (1980, pp. 148–149). Also see Keynes (1933) and Williamson (1985).
37. Steindl, at one point, noted that expanded systems of consumer credit were a means by which investment opportunities could be maintained in mature economies. See Steindl (1966).
38. See Steindl (1976, pp. xii–xiii).
39. In fact, it was this dramatic postwar economic performance, one that seemingly belied the stagnation theories of the inter-war years, that in part prompted Steindl to open the new introduction to the 1976 edition of *Maturity and Stagnation* with the observation that "[t]he first (1952) edition of this book appeared at a time which could not have been less propitious for its success." See Steindl (1976, p. ix).
40. From Steindl (1976, pp. xvi–xvii).
41. See, for significant and influential examples, Lucas (1975, 1977). Also see Steindl (1984).
42. The "Treasury View," that fiscal spending could not lower unemployment, emerged in Great Britain in 1929 in response to Liberal Party calls for more activist policy. See Bernstein (1987, p. 218).
43. From Steindl (1976, p. xvii). On the political constraints within which countercyclical policy is often formulated, see the pathbreaking essay of Kalecki (1972). Also of interest in this regard are Nordhaus (1975) and Fair (1978).
44. With apologies to my friend and colleague Arno J. Mayer (1975).

References

Abramovitz, Moses. 1961. "The Nature and Significance of Kuznets Cycles." *Economic Development and Cultural Change* 9: 225–248.

Aldcroft, Derek H. 1977. *From Versailles To Wall Street: 1919–1929.* London: Allen Lane.

Backman, Jules. 1939. "Price Inflexibility and Changes in Production." *American Economic Review* 29: 480–486.

Bernstein, Michael A. 1982. *Long-Term Economic Growth and the Problem of Recovery in American Manufacturing: A Study of the Great Depression in the United States, 1929–1939.* Ph.D. dissertation, Yale University.

——. 1985. "Explaining America's Greatest Depression: A Reconsideration of an Older Literature." *Rivista di Storia Economica* 2 (second series): 155–174.

——. 1987. *The Great Depression: Delayed Recovery and Economic Change in America, 1929–1939.* New York: Cambridge University Press.

Brockie, Melvin. 1950. "Theories of the 1937–38 Crisis and Depression." *Economic Journal* 60: 292–310.

Cassel, Gustav. 1932. *The Crisis in the World's Monetary System.* Oxford, England: Clarendon Press.

Crotty, J.R. 1983. "On Keynes and Capital Flight." *Journal of Economic Literature* 21: 59–65.

Dahmen, Erik. [trans., A. Leijonhufvud]. 1970. *Entrepreneurial Activity and the Development of Swedish Industry: 1919–1939.* Homewood, Illinois: Irwin.

Easterlin, Richard A. 1968. *Population, Labor Force, and Long Swings in Economic Growth: The American Experience.* New York: National Bureau of Economic Research.

Erickson, E.A. 1972. "The Great Crash of October, 1929." In *The Great Depression Revisited: Essays on the Economics of the Thirties,* H. van der Wee, ed. The Hague: Martinus Nijhoff.

Fair, Ray. 1978. "The Effect of Economic Events on Votes for President." *Review of Economics and Statistics* 60: 158–173.

Fellner, William. 1941. "The Technological Argument of the Stagnation Thesis." *Quarterly Journal of Economics* 55: 638–651.

——. 1954. "Full Use or Underutilization: Appraisal of Long-Run Factors Other Than Defense." *American Economic Review* 44: 423–433.

Fisher, Irving. 1930. *The Stock Market Crash—And After.* New York: Macmillan.

——. 1932. *Booms and Depressions: Some First Principles.* New York: Adelphi.

Friedman, Milton, and Anna Schwartz. 1963. *A Monetary History of the United States.* Princeton: Princeton University Press.

Galbraith, John Kenneth. 1972. *The Great Crash.* Boston: Houghton Mifflin.

Hansen, Alvin H. 1939. "Economic Progress and Declining Population Growth." *American Economic Review* 29: 1–15.

——. 1941. *Full Recovery or Stagnation?* New York: Norton.

Harris, Seymour. 1948. *Saving American Capitalism: A Liberal Economic Program.* New York: Knopf.

Kalecki, Michal. 1943. *Studies in Economic Dynamics.* London: Allen & Unwin.

——. 1962. "Observations on the Theory of Growth." *Economic Journal* 72: 134–153.

——. 1968. *Theory of Economic Dynamics: An Essay on Cyclical and Long-Run Changes in Capitalist Economy.* New York: Monthly Review Press.

——. 1969. *Studies in the Theory of Business Cycles, 1933–39.* New York: Augustus M. Kelley.

——. 1971. *Selected Essays on the Dynamics of the Capitalist Economy, 1933–1970.* Cambridge, England: Cambridge University Press.

——. 1972. "Political Aspects of Full Employment." In *The Last Phase in the Transformation of Capitalism,* Michal Kalecki, ed. New York: Monthly Review Press, pp. 75–83.

Keynes, John Maynard. 1933. "National Self-Sufficiency." *Yale Review* 22: 755–769.

——. 1937. "Some Economic Consequences of a Declining Population." *Eugenics Review* 29: 13–17.

——. 1980. *Activities 1940–1944: Shaping the Post-War World; The Clearing Union.* In *The Collected Writings of John Maynard Keynes,* vol. 25, D. Moggridge, ed. New York: Macmillan.

Kindleberger, Charles P. 1973. *The World in Depression: 1929–1939.* Berkeley, California: University of California Press.

Kuznets, Simon. 1958. "Long Swings in the Growth of Population and in Related Economic Variables." *Proceedings of the American Philosophical Society* 102: 25–52.

Lewis, W. Arthur. 1950. *Economic Survey, 1919–1939.* Philadelphia: Blakiston.

Lucas, Robert E. 1975. "An Equilibrium Model of the Business Cycle." *Journal of Political Economy* 83: 1113–1144.

——. 1977. "Understanding Business Cycles." In *Stabilization of the Domestic and International Economy*, K. Brunner and A.H. Meltzer, eds. New York: North-Holland, pp. 7–29.

Mayer, Arno J. 1975. "The Lower Middle Class as Historical Problem." *Journal of Modern History* 47: 409–436.

McLaughlin, G.E., and R.J. Watkins. 1939. "The Problem of Industrial Growth in a Mature Economy." *American Economic Review* 29: 1–14.

Means, Gardiner C. 1935. "Price Inflexibility and the Requirements of a Stabilizing Monetary Policy." *Journal of the American Statistical Association* 30: 401–413.

Means, Gardiner C., and Adolf A. Berle. 1968. *The Modern Corporation and Private Property.* New York: Harcourt, Brace & World.

Mishkin, F.S. 1978. "The Household Balance Sheet and the Great Depression." *Journal of Economic History* 38: 918–937.

Moore, G.H. 1950. *Statistical Indications of Cyclical Revivals and Recessions.* Occasional Paper 31, National Bureau of Economic Research.

Morgan, J.J.B. 1935. "Manic-Depressive Psychoses of Business." *Psychological Review* 42: 91–93, 98–107.

Nordhaus, William. 1975. "The Political Business Cycle." *Review of Economic Studies* 42: 169–190.

Noyes, C.R. 1930. "The Gold Inflation in the United States, 1921–1929." *American Economic Review* 20: 181–198.

Persons, C.E. 1930. "Credit Expansion, 1920 to 1929, and its Lessons." *Quarterly Journal of Economics* 45: 94–130.

Reynolds, Lloyd G. 1939. "Producers' Goods Prices in Expansion and Decline." *Journal of the American Statistical Association* 34: 32–40.

Robbins, Lionel. 1934. *The Great Depression.* New York: Macmillan.

Roepke, Wilhelm. 1936. *Crises and Cycles.* London: Hodge.

Roose, Kenneth D. 1948. "The Recession of 1937–38." *Journal of Political Economy* 56: 239–248.

——. 1954. *The Economics of Recession and Revival: An Interpretation of 1937–38.* New Haven: Yale University Press.

Schumpeter, Joseph A. 1939. *Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process.* New York: McGraw-Hill.

——. 1946. "The Decade of the Twenties." *American Economic Review* 36: 1–10.

Sirkin, G. 1975. "The Stock Market of 1929 Revisited: A Note." *Business History Review* 49: 223–231.

Slichter, Sumner. 1938. "The Downturn of 1937." *Review of Economics and Statistics* 20: 103–115.

Steindl, Josef. 1945. *Small and Big Business: Economic Problems of the Size of Firms.* Oxford, England: Basil Blackwell.

——. 1966. "On Maturity in Capitalist Economies." In *Problems of Economic Dynamics and Planning: Essays in Honour of Michal Kalecki.* New York: Pergamon, pp. 423–432.

——. 1976. *Maturity and Stagnation in American Capitalism.* New York: Monthly Review Press.

——. 1984. "Reflections on the Present State of Economics." *Banca Nazionale del Lavoro Quarterly Review* 148: 3–14.

Svennilson, Ingvar. 1954. *Growth and Stagnation in the European Economy.* Geneva: United Nations Economic Commission for Europe.

Sweezy, Paul M. 1939. "Demand under Conditions of Oligopoly." *Journal of Political Economy* 47: 568–573.

——. 1940. "Population Growth and Investment Opportunity." *Quarterly Journal of Economics* 55: 64–79.

——. 1968. *The Theory of Capitalist Development.* New York: Monthly Review Press.

Temin, Peter. 1976. *Did Monetary Forces Cause the Great Depression?* New York: Norton.

Terborgh, George. 1945. *The Bogey of Economic Maturity.* Chicago: Machinery and Allied Products Institute.

Thorp, W.L., and W.F. Crowder. 1941. "Concentration and Product Characteristics as Factors in Price-Quantity Behavior." *American Economic Review* 30: 390–408.

Timoshenko, Vladimir P. 1933. *World Agriculture and the Depression,* Michigan Business Studies 5. Ann Arbor, Michigan: University of Michigan Press.

Tobin, James. 1975. "The Wage-Price Mechanism." In *Consumption and Econometrics,* vol. 2 of *Essays in Economics,* James Tobin, ed. New York: North-Holland, 17–32.

United States Department of Commerce. 1975. *Historical Statistics of the United States: Colonial Times to 1970.* Washington, D.C.: U.S. Government Printing Office.

Viner, Jacob. 1936. "Recent Legislation and the Banking Situation." *American Economic Review* 26: 106–107.

Warburton, Clark. 1944. "Monetary Expansion and the Inflationary Gap." *American Economic Review* 34: 303–327.

——. 1945a. "Monetary Theory, Full Production, and the Great Depression." *Econometrica* 13: 114–128.

——. 1945b. "The Volume of Money and the Price Level between the World Wars." *Journal of Political Economy* 53: 150–163.

——. 1946. "Quantity and Frequency of Use of Money in the United States, 1919–45." *Journal of Political Economy* 54: 436–450.

Weinstein, Michael. 1980. *Recovery and Redistribution under the NIRA*. New York: North-Holland.

Williamson, J. 1985. "On the System in Bretton Woods." *American Economic Review* 75: 74–79.